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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,139	12/22/2004	Klaus Leuschner	2003P03731WOUS	4510

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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

RAO, SHEELA S

ART UNIT	PAPER NUMBER
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2123

MAIL DATE	DELIVERY MODE
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02/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,139	Applicant(s) LEUSCHNER, KLAUS	
	Examiner Sheela Rao	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 13, 15-17, 20-23 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 13, 15-17, 20-23 and 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to papers filed on 17 November 2008.
2. Claims 12, 13, 15-17, 20-23, and 25-28 are pending and presented for examination. Claims 12, 13, 15, 16, 21, 25, and 27 have been amended and claims 14, 18-19, 24, and 29 have been canceled.

Response to Amendment

3. The rejection of claims 12-15, 20-25, and 27-29 under 35 USC §102(b) as being anticipated by US Patent Application Publication No. US 2003/0011332 to Mays, II is withdrawn in light of the amendments made.
4. The rejection of claims 16-19 and 26 under 35 USC §103(a) as being unpatentable over US Patent Application Publication No. US 2003/0011332 to Mays, II in view of US Patent No. US 6,018,456 to Young et al. is maintained but modified to include the amendments made to the originally filed claims.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 12, 13, 15, 20-23, 25, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. US 2003/0011332 to Mays, II.

The prior art to Mays,II teaches of the control of motors within fan modules for use in personal computers. The limitations of the instant invention are taught/fairly suggested by Mays, II as stated hereinbelow.

With regard to claim 12, wherein a ventilation device for ventilating boards mounted in a support unit is claimed, and the ventilation device comprises, at least one fan unit connected to a power supply unit by connecting wires (see Fig. 3, item 100, and cable 110, as well as paragraph [0043]) ; and a control unit for monitoring the at least one fan unit, wherein the control unit controls a control element arranged in a power circuit of the connecting wires (see Fig. 4, item 121 and paragraph [0044]), wherein the control unit provides alarm or control signals for transmittal over a bus including signals indicative of an alarm condition relating to increased rotational speed or noise in the fan unit (taught in paragraphs [0045] and [0052] as a fault signal which indicates a fault condition relating to speed), and temperature monitoring and switching circuitry including a temperature monitoring device and a switching device connected in parallel with the control element, the circuitry configured to detect and respond to a fault in the fan unit by bypassing the control unit through-connecting a switching device to power the fan unit at full operating voltage when a board temperature is greater than a board limit temperature (see Fig. 4, item 134 and paragraphs [0011] and [0044]), the temperature monitoring device comprising a sensor diode integrated circuit on an

electronic component of the respective board (see paragraph [0044], sensor (item 134) is included to ascertain temperatures within the fan module). Mays discloses the claimed invention but does not specifically show the sensor to be integrated in an integrated circuit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have integrated or included the sensor on an electronic component, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. See *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Clearly one of skill would know that having a sensor connected to the circuit would accomplish the same task and functionality as would a sensor integrated in the circuit in the same way that a memory stick connected to a device stores the same information as an integrated memory element. The cited court case supports such action and placement, rendering the placement of the sensor as claimed in the instant invention obvious.

As per the placement of the switching elements as claimed in claim 13, wherein the switching device has switching elements arranged respectively on a board, the placement of the switching devices (items 158a and 158b) is shown in Fig. 4 and explained in paragraph [0049]. The cited portions of the prior art also teach the arrangement as claimed by claim 15, wherein the switching units and the control unit are arranged in the support unit separately from one another.

Claim 20 defines each switching element as configured as a semiconductor switching element. And claim 21 states the semiconductor switching element is a power MOSFET. Mays,II teaches the use of such elements in paragraph [0049] wherein the

configuration of a semiconductor switching element is essentially described and the use of MOSFETs is stated.

With regard to claims 22 and 23, wherein the fan unit has a brushless motor with integrated tachogenerator as a drive is claimed, the prior art of reference states that brushless fans include a brushless DC motor which provides a tachometer terminal as per paragraph [0017].

As per claim 25, the temperature monitoring device comprises a sensor diode integrated in an integrated circuit of an electronic component of the respective board and that the sensor diode is for temperature recording is stated. As stated in paragraph [0044], sensor (item 134) is included to ascertain temperatures within the fan module.

Claim 27 states that the control unit is connected to a control computer by a bus. Mays,II teaches the presence of such in paragraph [0069] with the use of the serial interface and communications port which essentially includes the bus (see paragraph [0023]).

7. Claims 16, 17, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. US 2003/011332 A1 to Mays,II as applied to claim 1 above, and further in view of US Patent No. 6,018,456 to Young et al.

The limitations of the instant invention with regard to the ventilation device, as per claim 1, is taught by the prior art of Mays,II. Claims 16 and 17 are directed to where the boards in the support unit are arranged in a pluggable manner in a backplane, and the parallel switching of the switching elements with the control element is established

via a backplane line in common to the switching elements. However, Mays,II fails to teach this aspect within a computing device; for this reason, the prior art of Young et al. (hereinafter "Young") is relied upon. Young teaches of an enclosure system for receiving a number of pluggable computer peripheral devices including fan modules, as stated in line 66 of column 5 through line 12 of column 6 and in Figs. 1 and 8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the backplane plug-in-ability as taught by Young for the boards made by Mays,II so as to allow for computing devices to be able to include numerous peripherals. Furthermore, the use of a backplane allows for an arrangement in which only the backplane needs to be interchanged if different buses or configurations are used as opposed to the entire device, which would result in lower costs and more flexibility.

As per claim 26 wherein plural fan units are arranged, Young shows the inclusion of multiple fans in Fig. 8.

Response to Arguments

8. Applicant's arguments filed November 17, 2008 have been fully considered but they are not persuasive.

Applicant argues that the references of prior art do not teach the limitations of the instant invention as amended. As aforementioned, the claimed limitations are obvious over the teachings of Mays, II whether alone or in combination with Young. The inclusion of an alarm condition is taught by Mays as stated above in paragraphs [0045]

and [0052], and the integration of the sensor with the electronic component is an obvious task as taught by the decision of the *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893) case. Therefore, the claimed limitations of the instant invention are not deemed to be patentable over the references of prior art and case law as applied and stated above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (571) 272-3751. The examiner can normally be reached Monday - Wednesday from 9:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah, can be reached on (571) 272-2279. The fax number for the organization where this application or any proceeding papers has been assigned is (571) 273- 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. It should be noted that status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should any questions arise regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kamini S Shah/

Supervisory Patent Examiner, Art Unit 2128

/Sheela Rao/
Examiner, Art Unit 2128
February 6, 2009